EPI Update for Friday, September 24, 2010
Center for Acute Disease Epidemiology (CADE)
Iowa Department of Public Health (IDPH)

Items for this week's EPI Update include:

- **Autumn outings to farms, orchards and pumpkin patches**
- **Part II: Epidemiology of common respiratory pathogens**
- **Updated CDC influenza control guidance in a healthcare setting for the 2010-2011 influenza season**
- **Update on healthcare-associated infection prevention grant activities**
- **Meeting announcements and training opportunities**

Autumn outings to orchards and pumpkin patches

Families and children's groups frequently take field trips to pumpkin patches and orchards this time of year. Such trips may be great fun, but people must be aware of certain risks. Some orchards and pumpkin patches may sell or offer free samples of fresh apple juice or cider. Parents, caregivers, and teachers must make sure any juice or cider consumed at any location is pasteurized.

Past outbreaks of *E. coli* O157 and other pathogens have originated from juice or cider that was only flash pasteurized or not pasteurized at all. If product labeling is unclear, ask the location owners or operators whether the juice or cider being offered has been pasteurized. Juice or cider which is contaminated with *E. coli* O157.H7 does not look, smell or taste different from normal apple juice or cider.

Unpasteurized products may be purchased as freshly pressed from local orchards, roadside stands, or farmer's markets. They may also be found on ice or in refrigerated display cases and in produce sections at grocery stores. Do not assume that because the juice is hot or bottled that it is safe for consumption. Complete pasteurization is necessary to kill organisms that have the potential to cause significant illness. The Centers for Disease Control and Prevention (CDC) advises that concerned consumers can reduce their risk of illness by heating their unpasteurized apple cider to at least 170^{o} F.

For more information about food-borne illnesses, visit www.idph.state.ia.us/adper/illness.asp.

Part II: Epidemiology of common respiratory pathogens

This week's EPI Update will review the epidemiology of rhinoviruses, influenza, and human metapneumoviruses, as part of a two-week series on the epidemiology of common respiratory pathogens.

Rhinoviruses

These viruses are the most frequent cause of the common cold, accounting for more than 50 percent of such infections. Symptoms are typical of an upper respiratory infection and may include cough, coryza, fever, and difficulty

breathing. Seasonal patterns and incidence are not well-defined for rhinovirus and the pathogen may circulate at any time during the year. The average child can expect to have four to eight rhinovirus infections per year, and adults have an estimated three to five infections per year.

Influenza
Influenza viruses are divided into two primary categories- influenza A and B. Influenza A infections are further described by the presence of neuraminidase and hemagglutinin surface proteins. Most viruses have seasonal patterns of infection. Surges in activity often follow periods of cold weather and low humidity, conditions favorable for the virus' survivability and transmission. However last year, the pandemic strain of 2009 H1N1 lacked the usual seasonal patterns of other influenza viruses. During most influenza seasons, one influenza A H3N2 and H1N1 virus will circulate. Influenza B activity usually occurs after the influenza A peak. In general, influenza A infections, and particularly those caused by H3N2 viruses, are more severe than influenza B infections.

Symptoms of influenza are similar to those of other viruses, but the presence of fever may be more common in all age groups. Influenza infections include fever, cough and/or sore throat, body aches, and significant fatigue. Symptoms in healthy people may last only three to five days, but in children may last longer. Persons with influenza infection are able to spread the disease one day before onset of symptoms to slightly beyond the end of a fever.

Influenza activity, both occurrence and type/strain, are difficult to predict, but this virus causes morbidity and mortality every year. The best defense against influenza is to get the annual influenza vaccine.

Human metapneumovirus (HMPV)
This virus was first identified in 2001 as a cause of respiratory tract infections in children. HMPV infections have been found in all age groups with a wide spectrum of respiratory tract involvement, including a flu-like syndrome, bronchitis, bronchiolitis, and pneumonitis. Co-infections with HMPV and RSV in infants are a factor that influences severe bronchiolitis. Little is known about the seasonality of this virus, but it is thought to cause respiratory infections worldwide.

Updated CDC influenza control guidance in a healthcare setting for the 2010-2011 influenza season
The CDC has updated their guidelines and recommendations for prevention of seasonal influenza in healthcare settings. The core prevention strategies include:

- Administration of influenza vaccine
- Implementation of respiratory hygiene and cough etiquette
- Appropriate management of ill HCP
- Adherence to infection control precautions for all patient-care activities and aerosol-generating procedures
- Implementing environmental and engineering infection control measures

To access the guidelines, visit www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm.

Update on healthcare-associated infection prevention grant activities
To date, nearly 70 acute care Iowa hospitals are participating with IDPH to measure and reduce two preventable healthcare-associated infections (HAIs), *Clostridium difficile* infections (CDI) and catheter-associated urinary tract infections (CAUTI).

Nationally, CDI causes 9,000 deaths annually and costs millions to treat; CAUTI causes 13,000 deaths annually and may double the amount of time a patient has to stay in the hospital.

IDPH is asking hospitals report these infections to the National Healthcare Safety Network (NHSN). By reporting to NHSN, hospitals can identify and measure what, where and how many preventable infections are occurring. For more information on which Iowa hospitals are participating, see www.idph.state.ia.us/hai_prevention.

In January 2011, IDPH and the Iowa Healthcare Collaborative will begin a statewide education campaign that will include working with hospital leaders, regulatory agencies, healthcare associations, schools, and infection prevention experts to reduce HAIs.

To learn more about HAI prevention, visit www.idph.state.ia.us/hai_prevention.

Meeting announcements and training opportunities

Registration is open for the 2010 **Iowa Environmental Health Association Fall Conference,** October 19-20, at Adventureland Inn, Altoona, Iowa. For more information visit www.ieha.net and follow the links to the conference web page.

The Influenza Teleconference Series is back this year with two offerings on Thursday, October 7th. Sponsored by IDPH and SHL, the conference will cover many issues surrounding influenza including testing, surveillance, and anticipated trends.

The first teleconference will be held from 12-1 p.m. and will be focused for healthcare providers and laboratorians.

The second teleconference will be held from 3:30-4:30 p.m. and will be for schools, child care providers, and coordinators of mass gatherings.

All persons wishing to attend MUST register at
www.uhl.uiowa.edu/educationoutreach/conferencesevents/influenza/

We wish everyone a healthy week!

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